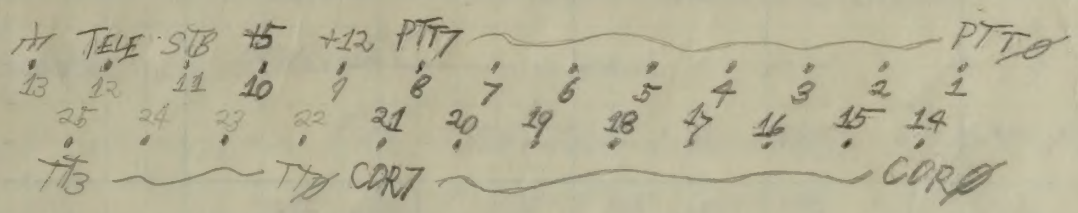
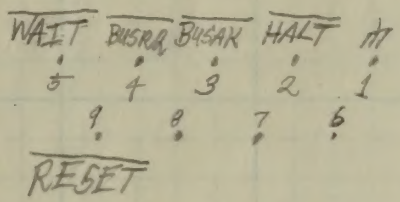
25 MARCH, '84 | HP 1676 | WA6DWH

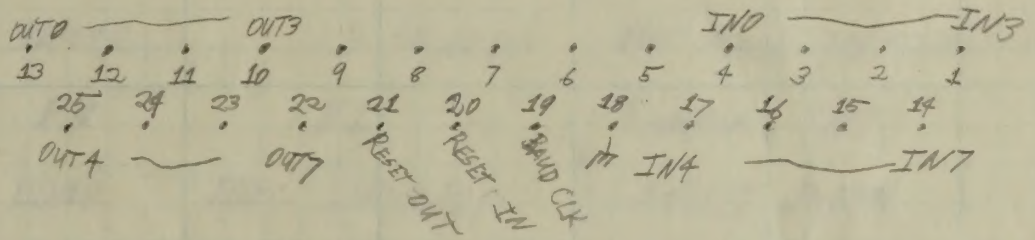
I/O



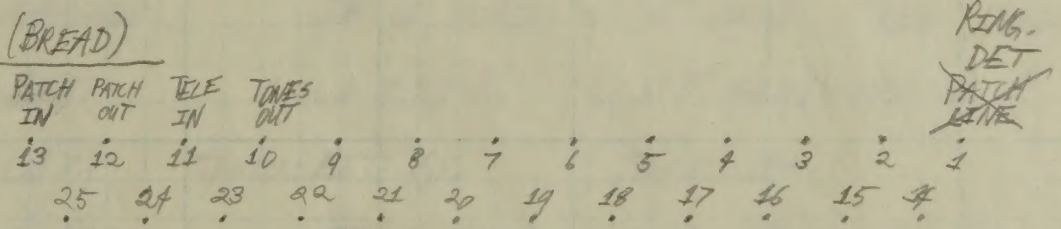
CPU



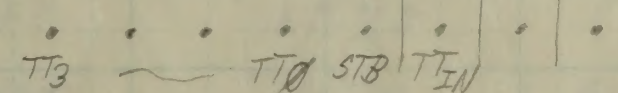
AUDIO MAT.



PATCH (BREAD)



TT DECODER



CPU TEST2 PROGRAM: TEST820821

```
ADDR  CODE      SOURCE
                ;... FOR TESTING CPU CARD APART FROM
                ; THE REST OF THE CONTROL SYSTEM...
                ;
                ; REGISTER      USE
                ;   A          DATA OUTPUT
                ;   B          INTERRUPT DEBOUNCE
                ;   C          DATA IN AND ADDRESS
                ;
0000  ED56          IM1         ; SELECT INT MODE 1
0002  010000        LD BC,0000H ; LET B=C=0
0005  310012        LD SP,1200  ; PUT STACK IN MIDDLE OF RAM
0008  FB            EI          ; ENABLE INT
0009  ED48    TOP: IN C,(C)    ; INPUT DATA
000B  CB71          BIT 6,C     ; TEST D6
000D  CA1200        JP Z,TEST2  ; IF D6=0 THEN TEST2
0010  0E07          LD C,07H    ; LET ADDR=00111
0012  CB79    TEST2:BIT 7,C     ; TEST D7
0014  CA0900        JP Z,TOP    ; IF D7=0 THEN TOP
0017  CBE9          SET 5,C     ; LET ADDR=111XXX
0019  CBF1          SET 6,C
001B  CBF9          SET 7,C
001D  C30900        JP TOP      ; AGAIN
```

Probe: D6=TP5 D7 must be high

D7 programming

```
ADDR  CODE      SOURCE
0020  00        NOP       ; FILL GAP WITH 24 NOP'S
0021  00        NOP
0022  00        NOP
  :    :         :
0037  00        NOP
0038  CB40      BIT 0,B   ; INT ROUTINE MUST BE AT 0038H
003A  C24700    JP NZ,I2  ; IF B(0)≠0 THEN I2
003D  3E01      LD A,01H  ; INITIALIZE OUT DATA
003F  0603      LD B,03H  ; SET OUT AND DEBOUNCE FLAGS
0041  FB        EI        ; RE-ENABLE INTERRUPT
0042  ED79      OUT: OUT (C),A ; OUTPUT DATA
0044  C34200    JP OUT    ; AD INFINITUM
0047  0603      I2: LD B,03H ; SET FLAGS
0049  FB          EI
004A  C9          RET     ; RETURN FROM INT
004B  00        NOP       ; FILL WITH 26 NOP'S
004C  00        NOP
  :    :         :
0065  00        NOP
0066  CB48      BIT 1,B   ; NMI ROUTINE MUST BE AT 0066H
0068  C26D00    JP NZ,N2  ; IF B(1)≠0 THEN N2
006B  ED45      RETN      ; RETURN FROM NMI
006D  07        N2: RLCA  ; ROTATE LEFT
006E  0601      LD B,01   ; RESET DEBOUNCE FLAG
0070  ED45      RETN      ; RETURN FROM NMI
                END
```

modified 3-28-83

HI DOUG,

OBVIOUSLY, THE "CODE" IS IN HEX AND OCCUPIES LOCATIONS 0000_H THROUGH 0070_H (TOTAL LENGTH = $71_H = 113_{10}$ BYTES). BE SURE THAT THE EPROM IS BLANK BEFORE WRITING. ALSO, I'LL GIVE YOU TESTING DIRECTIONS ON 2 METERS.

HAVE FUN, M. Paul Roberson

Program: IOTEST2

ADDR	CODE	SOURCE	
0000	310012	LD SP, 1200H	; put stack in middle of RAM
0003	ED56	IM1	; INT mode 1
0005	FB	EI	
0006	76	HALT	; Wait for INT or NMI
0007	C30600	JP 0006	
000A	00	NOP	
0038	DB01	IN A,(01)	; Input TT decoder
003A	D301	OUT (01), A	; output to telemetry
003C	FB	EI	; formerly ED40
003D	C9	RET	; Return from INT
003E	00	NOP	
0066	DB00	IN A,(00)	; In from COR's
0068	D300	OUT (00), A	; out to PTT's
006A	ED45	RETN	